

3. (currently amended) An X-ray microscope as claimed in Claim 1, wherein the cross-section of the fluid jet ~~(2)~~ in the direction of the focused beam is smaller than that in the direction transversely thereof.

4. (currently amended) An X-ray microscope as claimed in Claim 1, wherein the fluid jet consists essentially ~~mainly~~ of liquid oxygen or nitrogen.

5. (currently amended) An X-ray microscope as claimed in Claim 1, wherein the means for producing a focused beam of electrically charged particles ~~are formed by a standard~~ comprises an electron gun for a cathode ray tube, the X-ray microscope ~~also being provided with~~ including a condenser lens ~~(40)~~ which is arranged disposed between the fluid jet ~~(2)~~ and ~~the~~ an object ~~(14)~~ to be imaged by means of the X-ray microscope.

6. (currently amended) An electron microscope ~~which produces for producing~~ a focused electron beam ~~(6)~~ and ~~is provided with~~ including a device for generating X-rays, ~~characterized in that the~~ said device including includes:

- means for producing a fluid jet ~~(2)~~,
- means for directing the focus of the electron beam ~~(6)~~ onto the fluid jet.

7. (currently amended) An electron microscope as claimed in Claim 6 ~~which is provided with~~ and including an X-ray microscope, ~~and wherein the~~ said device for generating X-rays ~~acts~~ acting as the X-ray source for the X-ray microscope.